Warm Up # 2-2

From p. 185, do # 4

4 The heights of 20 ten year olds were recorded in centimetres:

109	111	113	114	114	118	119	122	122	124
124	126	128	129	129	131	132	135	138	138

a Using technology, find the:
- **i** median height
- **ii** upper and lower quartiles of the data.

b Copy and complete the following statements:
- **i** "Half of the children are no more than ..... cm tall."
- **ii** "75% of the children are no more than ..... cm tall."

c Find the: **i** range **ii** interquartile range for the height of the ten year olds.

d Copy and complete: "The middle 50% of the children have heights spread over ..... cm."

HW Questions:

p. 188 # 2c&d

p. 181 #4)

	L_1 x (mp)	L_2 f	(mp)(f)
(80 - <85)	82.5	8	660
	87.5	14	1225
	92.5	22	2035
	97.5	6	585
		$\sum f$ = 50	$\sum$(mp)(f) = 4505

calculator does this automatically

1-Var Stat L_1, L_2

$$\bar{x} = \frac{\sum (mp)(f)}{\sum f}$$

$$\bar{x} = \frac{4505}{50}$$

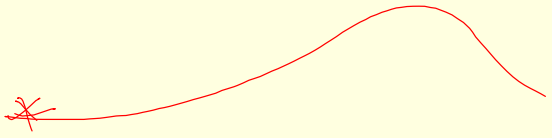
$$\bar{x} = 90.1 \text{ km h}^{-1}$$

★ Must show critical totals!!
top from calculator: $\sum x$
bottom " " : n.

p. 188 # 2c&d

HW Questions:

p. 188 #2d)



Since the data is negatively skewed, values at the low end, *, will effect the mean making it lower than the median. Median = 70

So mean ≈ 63-67ish.

Yesterday's Classwork:

Below is data that has been collected and grouped. The actual data is not available. Estimate the mean score, showing the correct formula and critical values by hand.

$\frac{7(3) + 12(8) + }{7 + 12 + 15}$

Score (x)	Frequency (f)	midpoints	(mp)(f)
1-5	7	3	
6-10	12		
11-15	15		
16-20	10		
21-25	11		

$= \_\_\_\_$

$\sum f =$ ____ $\sum (mp)(f) =$ ____

Which is the median class interval?

Now enter midpoints in L_1 and frequencies in L_2, then use 1-Var Stats to check the mean and median.

With your team, read aloud p. 183:

The Quartiles and Interquartile Range

4. 16 students took a test earning the following scores:

4, 24, 22, 20, 17, 22, 9, 12, 9, 9, 25, 20, 21, 17, 16, 22

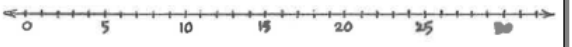
Find (with a graphing calculator if you wish):

a) median
b) mean
c) mode
d) quartile one
e) quartile three
f) interquartile range
g) range

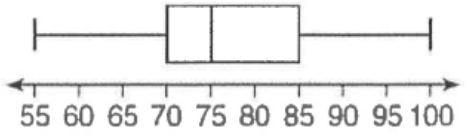
a. _____
b. _____
c. _____
d. _____
e. _____
f. _____
g. _____

Read p. 186 together, then

Construct a box and whisker:



5. The box and whisker plot below shows scores on a science test.



a) 75% of the scores were above_____.

b) The median score is _____.

c) 50% of the scores were between _____ and _____.

Fill in the 5-point summary and the IQR:

low _____ Q_1 _____ Med _____ Q_3 _____ high _____

IQR _____

Classwork for Today:

On a separate piece of paper, write this heading:

Week 2 Classwork: p. 189 - 190

Quietly read through the example on p. 189, then do p. 190, #1 and 2. Consult with members of your team as needed.

HW: 6D, p.169 # 2 (by hand)

6E.4, p.181 # 5

(grapher, show critical totals)

6G.1, p.188 # 3b,

5 (grapher OK for parts a & b)

6G.2, p.190 # 3